

REMARKS

Applicant offers the following remarks in support of the patentability of the claims and requests the Examiner's consideration in that regard.

Claims 3 and 33-34 have been amended to address the Examiner's objections thereto. Applicant believes the amendments render the objections moot.

Claim 13 has also been amended to correct the deficiency noted by the Examiner under Section 112.

Accordingly, Applicant respectfully requests that the claim objections and claim rejection under Section 112 be withdrawn.

Objections To The Figures Have Been Addressed

A replacement sheet for FIG. 8 is enclosed. The Examiner had objected to FIG. 8 due to letters being obscured. Applicant is hopeful this replacement figure will be acceptable.

Regarding the color photographs and drawings noted by the Examiner, a petition under 37 CFR 1.84(a)(2) is enclosed, together with the applicable fee. Again, Applicant hopes this fully addresses the issue regarding the color figures and photos, which Applicant believes best illustrate the principles of the invention.

Objections To The Claims Have Been Addressed

Claims 33 and 34 no longer refer to more than one other claim. Accordingly, the Examiner's objections that these claims were in improper form should now be satisfied.

Claim 3 now specifies that the plastid of claim 1 is a chloroplast, therefore further limiting the scope of claim 1. Consequently, the Examiner's objection to the claim as being in improper form for a dependent claim has been addressed and corrected.

The Examiner also pointed out that the language of claim 13 did not make sense as applied to a vector. Applicant has amended claim 13 to correct this deficiency and the claim language should now be acceptable.

The Claims Are Nonobvious Over The Cited Combination of References

The Examiner has cited Hajukiewicz et al. (WO 00/03022) in view of Goodman et al. (US 5,629,175) as rendering the pending claims obvious and unpatentable under 35 USC §103(a). For the following reasons, Applicant respectfully disagrees, while noting that these remarks are focused on claim 1 as the sole remaining independent claim. It is well established that if an independent claim is found patentable, its dependent claims, which add further distinguishing features, would also be patentable without further consideration.

The Examiner has noted that Hajukiewicz et al. teach transformation of tobacco chloroplasts but do not teach expression of insulin-like growth factor (IGF) in tobacco plastids. The Examiner has also noted that Goodman et al. teach expression of mammalian proteins, including insulin-like growth factor, in plants. Goodman et al., however, describe nuclear transformation of plants, not plastid transformation. Therefore, the Goodman et al. reference teaches nothing about chloroplast transformation.

The present application indicates that a preferred embodiment of the invention employs the universal integration and expression vector disclosed in WO 99/10513 (now US Patent No. 7,129,391) a publication incorporated by reference in its entirety in the present application (see par. 0067 in US 2007/0124838). Accordingly, independent claim 1 has been amended to incorporate part of original claim 10, which recites that the first and second flanking sequences are substantially homologous to sequences in a spacer region in the plastid genome.

Since the Goodman et al. reference does not teach plastid transformation and the Hajukiewicz et al. does not even discuss spacer regions, Applicant contends that the combined references teach nothing that would lead one of ordinary skill in the art to arrive at the claimed invention. The present invention is, therefore, nonobvious over the cited art and should be patentable as such.

For those reasons, Applicant respectfully requests that the claim rejections under Section 103(a) be withdrawn and that the application be allowed.

Conclusion

Having responded to the last remaining concerns noted by the Examiner, Applicant now believes the application should be in condition for allowance and respectfully requests such action.

If the further processing of the application could be facilitated through a telephone conference between the Examiner and the undersigned, the Examiner is requested to telephone.

Respectfully submitted,

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